

REMARKS

Reconsideration of this application is respectfully requested.

This application has been reviewed in light of the Office Action dated January 29, 2003. Claims 1-11 are currently pending. It is gratefully acknowledged that the Examiner has found allowable subject matter in Claims 2, 3, 5, and 6.

In the Office Action, the Examiner has rejected Claims 1, 4, and 7-11 under 35 U.S.C. § 103(a) as being unpatentable over *Czaja et al.* (U.S. 6,424,631 B1), and objected to Claims 2, 3, 5, and 6 as being dependent upon a rejected base claim.

The present application is directed to a CDMA (Code Division Multiple Access) mobile communication system, and a channel spreading method in a CDMA communication system which spreads a pair of symbols obtained by repeating one symbol with a quasi-orthogonal code having a given length to transmit the spread symbols through a first antenna, and spreads the symbol and an inverted symbol of the symbol with the quasi-orthogonal code to transmit the spread symbols through a second antenna. The method comprises spreading one of the pair of symbols with a portion of the quasi-orthogonal code and spreading another symbol of the pair of symbols with a remaining portion of the quasi-orthogonal code; and spreading the symbol with a portion of the quasi-orthogonal code and spreading the inverted symbol with the remaining portion of the quasi-orthogonal code.

As stated above, the Examiner has rejected independent Claims 1, 4, and 7 under 35 U.S.C. § 103(a) as being unpatentable over *Czaja*. However, in the rejections, it is respectfully submitted that the Examiner has misapplied the art in a number of instances.

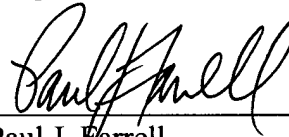
With regards to Claims 1 and 4, the Examiner alleges that *Czaja* teaches spreading one of a pair of symbols with a portion of a quasi-orthogonal code and spreading another symbol of the pair of symbols with a remaining portion of the quasi-orthogonal code; and spreading a second symbol with a portion of the quasi-orthogonal code and spreading an inverted symbol of the second symbol with the remaining portion of the quasi-orthogonal code, as is recited in Claims 1 and 4. However, it is respectfully submitted that there is no section of *Czaja* in which the above steps are disclosed. Instead, the Examiner cites many disparate sections of *Czaja* and mostly relies on Column 1, paragraph 2, which merely states a brief overview of CDMA technology.

With regards to Claims 1, 4, and 7, the Examiner asserts that although *Czaja* only shows one antenna, it would have been obvious to use two antennas as recited in Claims 1, 4, and 7, stating that the second antenna is a mere duplication of the essential working parts of the invention. However, as the second antenna in Claims 1, 4, and 7 is used to transmit a second symbol or second symbols at the same time the first antenna transmits a first symbol or first symbols, it is not mere a duplication of a necessary part. Rather, the second antenna is itself a necessary part. Therefore, it is respectfully submitted that the Examiner is incorrect in rejecting Claims 1, 4, and 7 under 35 U.S.C. § 103(a) as being unpatentable over *Czaja*, and it is respectfully requested that the rejections to independent Claims 1, 4, and 7 be withdrawn.

It is respectfully submitted that Claims 1, 4, and 7 are in condition for allowance, and at least because of their dependence upon these claims, dependent Claims 2-3, 5-6, and 8-11 are also in condition for allowance.

In view of the preceding amendments and remarks, it is respectfully submitted that all pending claims, namely Claims 1-11, are in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



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